

ABSTRACT

An air conditioner service fitting is provided and includes a valve body comprising a threaded bore and an annular valve seat extending around the bore. The valve body is configured and the valve seat is positioned such that all fluid that passes through the bore crosses the valve seat. A twist-to-open valve is disposed in the bore and threadedly engages with the valve body. The twist-to-open valve includes a valve element configured to form a polymer-to-metal seal with the valve seat. The polymer-to-metal seal stops substantially all fluid flow through the bore and the flow path when the twist-to-open valve is closed. The valve body further includes an external connection feature disposed around the bore. The valve body comprises an external sealing surface.